

SOME NEW ORIENTAL ZYGAENIDAE.

By DR. K. JORDAN.

1. *Callizygaena venusta* spec. nov.

♂. Corpore nigro-velutino, parum aenescens, antice maculis coeruleis metallicis ornato, abdomine subtus fascia latissima flava signato. Alis anticis linea subbasali alteraque antemediana coeruleis nitentibus, macula apicali marginali coeruleo-viridi; posticis macula discali atque squamis dispersis coeruleis ornatis.

♀ differt a ♂ abdomine absque fascia flava, alarum signaturis magis extensis, alis anticis fascia semicirculari pone cellulae apicem.

Long. al. ant. ♂ 15, ♀ 17 mm.

One pair from Matang, Saráwak, 3600 ft., June 1900, received from J. C. Moulton.

Nearest to *C. unipuncta* Swinh. (1904), which, however, has a large hyaline spot in the hindwing.

Antenna bipectinate, with the exception of the basal and apical segments, the branches gradually longer, being longest at the apical third, the last seven or eight segments short and almost moniliform, the preceding segments much smaller and bearing in the ♀ rough scaling, which together with the long pectination gives to the antenna the appearance of being strongly clavate. The scaling of the antennae, the frons, some spots on the thorax, and in ♀ a spot on each side at the base of the abdomen glossy blue, the abdominal spot in ♂ glossy golden; posterior segments of abdomen purple; underside of abdomen of ♂ yellow with the exception of the proximal segments.

Forewing with small transparent discocellular spot; the subbasal and ante-median transverse glossy blue lines straight; beyond apex of cell a few metallic scales in ♂ and a curved band in ♀; the glossy golden green apical band narrows posteriorly and reaches in ♀ the hind angle, before which this sex bears a large golden patch.—The metallic spot on the hindwing is small in the ♂ and large in the ♀, in the latter also the abdominal margin being broadly bordered with metallic blue.

On the *underside* the proximal bands of the forewing absent, but below cell some metallic scales; at upper as well as lower angle of cell a blue patch, the posterior patch in ♂ united with the marginal band, which extends from apex to hind angle in both sexes.—On hindwing a subbasal spot and a discocellular bar glossy blue, a marginal band (♂) or apical spot (♀) golden green.

The ground of both wings on both surfaces with a blue sheen in certain lights.

2. *Heteropan alienus* spec. nov.

♂. In hoc genere magnus; antennis, capite, thorace alisque anticis supra purpureis, corpore infra luteo-griseo, palpis pedibusque plus minus flavis. Alis elongatis, anticis apice haud truncatis, margine distali rotundato, macula magno subcentrali alba; posticis vitreo-albis, marginibus distali et costali violaceo-nigris. Alis infra ut supra, sed anticis magis violaceis atque macula alba multo majore.

Long. al. ant. 23 mm.

One ♂ from near the Oetakwa R., Snow Mts., Dutch New Guinea, up to 3500 ft., x.-xii. 1909 (A. S. Meek).

Differs rather remarkably from the other species of the genus in the elongate wings. Third subcostal of forewing present, thrown off from stalk of 4.5 near cell. Upperside of abdomen violaceous green. The white patch on the forewing above rounded, about as long as broad, expanding between subcostal and second submedian veins and placed proximally to apex of cell. The distal border of the hindwing very feebly narrowing behind, being 3 mm. broad in centre (inclusive of fringes), while the costal border only occupies the space between costal edge and cell.

On the forewing below the white patch extends a little beyond the apex of the cell and also reaches farther basad than on the npperside.

3. *Heteropan apicalis* spec. nov.

♀. Antennis, capite thoraceque supra purpureis, abdomine et sternis viridi-violaceis, palpis et rostro flavis, pedibus luteis plus minusve viridi-violaceo squamosis. Alis anticis supra purpureo-nigris, truncatis, macula apicali magna alba late aeneo-viridi marginata; posticis violaceis. Infra violaceis, anticis macula alba apicali.

Long. al. ant. 8.5—9 mm.

6 ♀ ♀ from near the Oetakwa R., Snow Mts., Dutch New Guinea, up to 3500 ft., x.-xii. 1909 (A. S. Meek).

This is the only known species in which the apex of the forewing is white. The glossy bluish green band which borders this patch on the proximal side is straight, running obliquely from the costal to the distal margin, which it reaches in front of the angle; in the centre of the wing there are traces of a bluish green transverse band. The upperside of the hindwing and the underside of both wings are blue and have a rather strong gloss.

Forewing with five subcostals; lower median far proximal, almost on a level with first subcostal.

4. *Heteropan truncata adamaris* subsp. nov.

♂. Abdomine supra et infra coeruleo, antennis purpureis; alis anticis supra sine macula distincta alba, posticis albis margine exteriore coeruleo nitente.

A series of ♂♂ from near the Oetakwa R., Snow Mts., Dutch New Guinea, up to 3500 ft., x.-xii. 1909 (A. S. Meek).

Forewing rounded-truncate, very slightly incurved below the apex, on disc a more or less slight indication of a white spot, no distinct metallic spot or band near outer margin, but with dull green and somewhat glossy scaling along costal edge and near outer margin; fringes only with a few metallic scales, much less glossy than in *H. t. chitonea* Jord. (1907). Hindwing as in *H. t. chitonea* ♀.

On underside the forewing with a large white patch extending from the base to near the apex of cell, sometimes occupying almost the whole proximal three-fifths of the wing; the white area of the hindwing reaches to costal margin, the latter not being blue in the centre.

Palpi, breast, and legs duller yellow than in *chitonea*. The underside of the abdomen very little paler than the upper.

Besides the type of *chitonea*, a ♀ from Milne Bay, we have a series of ♀♀ of

that form from the Kumnsi R. in North-Eastern British New Guinea, collected by A. S. Meek in August 1907. Along with these ♀♀ Meek sent a single ♂, which presumably is the ♂ of *chitonea*. It differs from the ♀♀ in the forewing being rather narrower and bearing only a few metallic scales in place of the distinct submarginal band of the ♀♀; further, in the white area of the hindwing being reduced on the upperside to a central stripe which fills in the cell and extends beyond the apex of it, the stripe being bounded on the underside by the costal and lower submedian veins; the basal portion of the abdominal area whitish. The abdomen is yellowish white on the underside, with a bluish sheen.

5. *Heteropan iscatu*s spec. nov.

A *H. aniso* Jord. (1907) differt alis anticis linea metallica admarginali ornatis, posticis subtns inter cellulam et marginem abdominalem coerulescentibus.

2 ♂♂ from near the Oetakwa R., Snow Mts., Dutch New Guinea, up to 3500 ft., x.-xii. 1909 (A. S. Meek).

In the ♂♂ of *lycaenoides* Walk. (1864) and *cyaneus* Jord. (1907) the hindwing beneath bears a purplish blue triangular spot posteriorly at the base. This spot is absent from the ♂♂ of *aniso*s Jord. (1907) and the present species; but whereas the abdominal area of the underside of the hindwing (♂) is covered with clay-coloured scales as far as the upper submedian vein in *aniso*s, this area is metallic blue and partly bluish white in the new species.

The forewing more rounded at the apex than in *aniso*s; the distal margin purplish brown, within this brown border a blue metallic line nearly as in *scintillans*, but farther away from the margin, the fringes metallic.—Hindwing blue, with a white central smear occupying cell and extending beyond apex of same (type), or entirely blue.

On *underside*, a large white patch on forewing occupying the distal part of cell (or nearly the whole cell) and the parts of disc adjacent to the apex of cell; a similar white patch on hindwing. These white patches absent from ♂ of *aniso*s, but present in ♀ of *aniso*s, though somewhat smaller.

Coxae, sterna, and underside of abdomen paler than in ♂ of *aniso*s, claspers and underside of preceding segment blue, rather paler than upperside of abdomen. Forewing with five subcostals.

6. *Eusphalera flavifrons* spec. nov.

♂. Nigra, parum violascens, fronte sulphurea, abdomine subtns pallide stramineo; alis anticis fascia aurantiaca mediana obliqua recta ornatis; posticis absque signatris.

Long. al. ant. 16 mm.

1 ♂ from the Ninay valley, Arfak Mts., Dutch New Guinea, 3500 ft., February and March 1909 (Messrs. Pratt).

The pectinations of the antenna have a distinct ochraceous tone. Frons of head bright sulphur-yellow, occiput and scaling of antenna slightly metallic greenish blue. Upperside of forewing with a distinct purple sheen, which is less distinct on the upperside of the hindwing than on the underside. The orange band of the forewing 2 mm. broad, being very little widened costally. Breast and legs blue, as is also an ill-defined stripe which borders the pale creamy buff underside; apex of coxae, trochanters and base of femora creamy buff.

On *underside* the band of the forewing slightly broader as well as paler than above ; hindwing with a small blue subapical spot, below which there is a vestigial second spot ; forewing without blue spots above and beneath.

Fifth subcostal of forewing much more distal than third.

7. *Herpolasia albomedia callerema* subsp. nov.

♀. Differt ab *H. alb. albomedia* Roths. (1897) area alba alarum posticarum valde reducta.

1 ♀ from the Upper Setekwa R., Snow Mts., Dutch New Guinea, 2000—3000 ft., September 1910 (A. S. Meek).

The white area of the hindwing is reduced to an obliquely oblong patch 5 mm. broad and about 9 long, extending from the costal vein to the upper median on the upperside, being a little broader and longer on the underside ; the patch bounded by metallic blue from before its outer angle around the posterior side to the centre of the cell, the blue border widening out in a basal and abdominal direction to near base and second submedian vein, there being also dispersed blue scales below this vein.

On *underside* the cell of forewing white, not crossed by a dark bar as in *H. a. albomedia* ; the metallic scaling blue, occupying almost the whole of the hindwing with the exception of the white patch, and being also more extended on disc of forewing than in true *albomedia*, while the hind margin as far as the upper submedian has hardly any blue scales.

8. *Phlebohecta viduata* spec. nov.

♂. A *S. lypusa* Jord. (1907) thorace abdomineque flavo notatis distinguenda. Long. al. ant. 14 mm.

1 ♂ from Sintang, Dutch Borneo, February 1910 (Dr. Martin).

Bluish black like *lypusa*, described from a ♀ from the Batoe Islands. Antenna with rather long pectinations, as in *P. eupomia* Swinh. Frons whitish yellow, patagia with an orange yellow spot, metanotum with a narrow whitish edge ; on the breast a white spot on each side ; abdomen with four yellow bands, one or two complete dorsally, first and second white on underside and broadly interrupted above ; apex of tarsi white.

On forewing, *upperside*, an elongate-ovate spot in apex of cell, and on hindwing a triangular spot in cell and below it proximally to lower median vein white, fringes white at apex of wings.

On *underside* the spots as above, rather larger ; in addition on forewing a long white streak below cell and a short one in cell ; on hindwing a diffuse discocellular spot and a patch before abdominal margin.

9. *Caprima mutilata henica* subsp. nov.

♀. A *C. m. mutilata* Walk. (1864) macula subbasali alarum anticarum multo minore et area flava alarum posticarum angustiore distinguenda.

1 ♀ from the Upper Setekwa R., Snow Mts., Dutch New Guinea, 2000—3000 ft., September 1910 (A. S. Meek).

10. *Caprima plagiata* spec. nov.

♂ ♀. Nigra, fronte, pronoto, macula subbasali in ala antica, altera obliqua multo majore in ala postica albis; alis anticis area rufa discali venis nigris secta ornatis.

Long. al. ant. 11·5—12·5 mm.

1 ♂ from near the Oetakwa R., Snow Mts., Dutch New Guinea, up to 5000 ft., x.-xii. 1910 (A. S. Meek) and 1 ♀ from the Upper Setekwa R. in the same district, 2000—3000 ft., September 1910 (A. S. Meek).

The underside of the thorax and the coxae grey with a blue gloss; the legs pale clay-colour; the extreme tip of the abdomen white. The subbasal patch of the forewing is 2 mm. broad and closely extends to the costal and hind margins; the rufous discal area is much brighter and also larger in ♀ than in ♂, occupying the apex of the cell and the greater part of the disc from the first subcostal to the second submedian in ♀, being much shaded with black in ♂. The white area of the hindwing reaches from the costal margin near base to near outer margin above anal angle, being longer in ♂ than in ♀; its hind edge is about parallel with the abdominal margin of wing, while the anterior edge is elbowed near apex of cell.

On the underside the rufous colouring on the forewing is reduced to a band which tapers behind and anteriorly widens in a basal direction, entering the cell, the band shorter in the ♂ than in the ♀ and traversed by black veins in both sexes. White area of hindwing larger than above, triangular, with the apex of the triangle rounded off.
